



83127-11\_seq\_list\_mar\_2008.ST25.txt  
SEQUENCE LISTING

<110> BIOMEASURE, INC.  
<120> GHRELIN ANALOGS  
<130> 113P2/PCT3/CA Yankwich BIO-113.2 PCT  
<140> PCT/US2003/022925  
<141> 2003-07-23  
<150> US 60/427,488  
<151> 2002-11-19  
<150> US 60/397,834  
<151> 2002-07-23  
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 <223> Xaa = 1-amino-1-cyclohexanecarboxylic acid (A6c),  
 1-amino-1-cyclopentanecarboxylic acid (A5c),  
 alpha-aminoisobutyric acid (Aib), homoLeu, or beta-cyclohexylAla  
 (Cha)

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Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
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 1-amino-1-cyclopentanecarboxylic acid (A5c),  
 alpha-aminoisobutyric acid (Aib), homoLeu, or beta-cyclohexylAla  
 (Cha)

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Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
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<222> (6)..(6)

<223> Xaa = alpha-aminoisobutyric acid (Aib),  
4-amino-4-carboxytetrahydropyran (Act), Thr, or  
alpha-aminobutyric acid (Abu)

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<223> Xaa = 1-amino-1-cyclopentanecarboxylic acid (A5c)

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<222> (28)..(28)

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Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
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 <223> Xaa = 1-amino-1-cyclopentanecarboxylic acid (A5c)

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Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
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Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
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 beta-(4-pyridinyl)Ala (4Pal), beta-(4-thiazolyl)Ala (Taz),  
 beta-(2-thienyl)Ala (2Thi), beta-(2-furyl)-Ala (2Fua), Apc, or  
 alpha-aminoisobutyric acid (Aib)

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Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
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<210> 9  
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 <222> (7)..(7)  
 <223> Xaa = 5,5-dimethylthiazolidine-4-carboxylic acid (Dmt),  
 thiazolidine-4-carboxylic acid (Thz), 4-hydroxyPro (4Hyp),  
 pipecolic acid (Pip), 3,4-dehydroPro (Dhp), 4-ketoPro (Ktp), or  
 1,2,3,4-tetrahydroisoquinoline-3-carboxylic acid (Tic)  
  
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Gly Xaa Ser Phe Leu Ser Xaa Glu His Gln Arg Val Gln Gln Arg Lys  
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Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

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Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
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&lt;223&gt; Xaa = alpha-aminoisobutyric acid (Aib)

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&lt;221&gt; MISC\_FEATURE

&lt;222&gt; (8)..(8)

&lt;223&gt; Xaa = alpha-aminoisobutyric acid (Aib)

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&lt;222&gt; (28)..(28)

&lt;223&gt; AMIDATION

&lt;400&gt; 11

Gly Xaa Ser Phe Leu Ser Pro Xaa His Gln Arg Val Gln Gln Arg Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
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&lt;210&gt; 12

&lt;211&gt; 28

&lt;212&gt; PRT

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&lt;220&gt;

&lt;223&gt; Ghrelin Analog

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&lt;221&gt; MISC\_FEATURE

&lt;222&gt; (2)..(2)

&lt;223&gt; Xaa = alpha-aminoisobutyric acid (Aib)

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&lt;223&gt; Xaa = alpha-aminoisobutyric acid (Aib)

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&lt;222&gt; (28)..(28)

&lt;223&gt; AMIDATION

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Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
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Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
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 beta-(4-pyridinyl)Ala (4Pal), beta-(4-thiazolyl)Ala (Taz),  
 beta-(2-thienyl)Ala (2Thi), beta-(2-furyl)-Ala (2Fua), Apc, or  
 alpha-aminoisobutyric acid (Aib)

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Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
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 thiazolidine-4-carboxylic acid (Thz), 4-hydroxyPro (4Hyp),  
 pipecolic acid (Pip), 3,4-dehydroPro (Dhp), or 4-ketoPro (Ktp)

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Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
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Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
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<222> (5)..(5)

<223> Xaa = 1-amino-1-cyclohexanecarboxylic acid (A6c)

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Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg

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<223> Xaa = 1-amino-1-cyclohexanecarboxylic acid (A6c), 1-amino-1-cyclopentanecarboxylic acid (A5c), alpha-aminoisobutyric acid (Aib), homoLeu, or beta-cyclohexylAla (Cha)

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Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
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<223> Xaa = 2,3-diaminopropionic acid (Dap) modified with octanesulfonyl

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<223> Xaa = alpha-aminoisobutyric acid (Aib),  
4-amino-4-carboxytetrahydropyran (Act), Thr, or  
alpha-aminobutyric acid (Abu)

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&lt;223&gt; AMIDATION

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Gly Xaa Xaa Phe Leu Xaa Pro Glu His Gln Arg Val Gln Gln Arg Lys  
1 5 10 15Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
20 25

&lt;210&gt; 21

&lt;211&gt; 28

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&lt;223&gt; Ghrelin Analog

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<223> Xaa = 2,3-diaminopropionic acid (Dap) modified with  
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&lt;223&gt; Xaa = 1-amino-1-cyclopentanecarboxylic acid (A5c)

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&lt;222&gt; (28)..(28)

&lt;223&gt; AMIDATION

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<223> Xaa = 2,3-diaminopropionic acid (Dap) modified with octanesulfonyl

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<223> Xaa = 1-amino-1-cyclopentanecarboxylic acid (A5c)

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<222> (15)..(15)

<223> Xaa = ornithine (Orn)

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<223> AMIDATION

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Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
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<223> Xaa = 2,3-diaminopropionic acid (Dap) modified with octanesulfonyl

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 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

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 <223> Xaa = beta-(3-pyridinyl)Ala (3Pal), beta-(2-pyridinyl)Ala (2Pal), beta-(4-pyridinyl)Ala (4Pal), beta-(4-thiazolyl)Ala (Taz), beta-(2-thienyl)Ala (2Thi), beta-(2-furyl)-Ala (2Fua), Apc, or alpha-aminoisobutyric acid (Aib)

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Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
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 <222> (7)..(7)  
 <223> Xaa = 5,5-dimethylthiazolidine-4-carboxylic acid (Dmt), or thiazolidine-4-carboxylic acid (Thz), 4-hydroxyPro (4Hyp), pipecolic acid (Pip), 3,4-dehydroPro (Dhp), or 4-ketoPro (Ktp)

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Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
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<220>  
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&lt;222&gt; (3)..(3)

&lt;223&gt; Xaa = 2,3-diaminopropionic acid (Dap) modified with octanesulfonyl

&lt;220&gt;

&lt;221&gt; MOD\_RES

&lt;222&gt; (28)..(28)

&lt;223&gt; AMIDATION

&lt;400&gt; 26

Gly Xaa Xaa Phe Leu Ser Pro Glu His Gln Arg Val Gln Gln Arg Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

&lt;210&gt; 27

&lt;211&gt; 28

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&lt;220&gt;

&lt;221&gt; MISC\_FEATURE

&lt;222&gt; (2)..(2)

&lt;223&gt; Xaa = alpha-aminoisobutyric acid (Aib)

&lt;220&gt;

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&lt;222&gt; (3)..(3)

&lt;223&gt; Xaa = 2,3-diaminopropionic acid (Dap) modified with octanesulfonyl

&lt;220&gt;

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&lt;222&gt; (5)..(5)

&lt;223&gt; Xaa = 1-amino-1-cyclopentanecarboxylic acid (A5c), alpha-aminoisobutyric acid (Aib), homoLeu, or beta-cyclohexylAla (Cha)

&lt;220&gt;

&lt;221&gt; MOD\_RES

&lt;222&gt; (28)..(28)

&lt;223&gt; AMIDATION

&lt;400&gt; 27

Gly Xaa Xaa Phe Xaa Ser Pro Glu His Gln Arg Val Gln Gln Arg Lys  
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Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
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&lt;210&gt; 28

&lt;211&gt; 28



<212> PRT  
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<223> Xaa = alpha-aminoisobutyric acid (Aib)

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<223> Xaa = 2,3-diaminopropionic acid (Dap) modified with octanesulfonyl

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<223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
<221> MOD\_RES  
<222> (28)..(28)  
<223> AMIDATION

<400> 28

Gly Xaa Xaa Phe Leu Ser Pro Xaa His Gln Arg Val Gln Gln Arg Lys  
1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
20 25

<210> 29  
<211> 28  
<212> PRT  
<213> Artificial

<220>  
<223> Ghrelin Analog

<220>  
<221> MISC\_FEATURE  
<222> (2)..(2)  
<223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
<221> MISC\_FEATURE  
<222> (3)..(3)  
<223> Xaa = 2,3-diaminopropionic acid (Dap) modified with octanesulfonyl

<220>  
<221> MISC\_FEATURE  
<222> (10)..(10)  
<223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 29

Gly Xaa Xaa Phe Leu Ser Pro Glu His Xaa Arg Val Gln Gln Arg Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 30  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>  
 <221> MISC\_FEATURE  
 <222> (3)..(3)  
 <223> Xaa = 2,3-diaminopropionic acid (Dap) modified with  
 octanesulfonyl

<220>  
 <221> MISC\_FEATURE  
 <222> (6)..(6)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib),  
 4-amino-4-carboxytetrahydropyran (Act), Thr, or  
 alpha-aminobutyric acid (Abu)

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 30

Gly Ser Xaa Phe Leu Xaa Pro Glu His Gln Arg Val Gln Gln Arg Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 31  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>  
 <221> MISC\_FEATURE

&lt;222&gt; (3)..(3)

&lt;223&gt; Xaa = 2,3-diaminopropionic acid (Dap) modified with octanesulfonyl

&lt;220&gt;

&lt;221&gt; MISC\_FEATURE

&lt;222&gt; (12)..(12)

&lt;223&gt; Xaa = 1-amino-1-cyclopentanecarboxylic acid (A5c)

&lt;220&gt;

&lt;221&gt; MOD\_RES

&lt;222&gt; (28)..(28)

&lt;223&gt; AMIDATION

&lt;400&gt; 31

Gly Ser Xaa Phe Leu Ser Pro Glu His Gln Arg Xaa Gln Gln Arg Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

&lt;210&gt; 32

&lt;211&gt; 28

&lt;212&gt; PRT

&lt;213&gt; Artificial

&lt;220&gt;

&lt;223&gt; Ghrelin Analog

&lt;220&gt;

&lt;221&gt; MISC\_FEATURE

&lt;222&gt; (3)..(3)

&lt;223&gt; Xaa = 2,3-diaminopropionic acid (Dap) or 2,4-diaminobutyric acid (Dab), both modified with octanesulfonyl

&lt;220&gt;

&lt;221&gt; MISC\_FEATURE

&lt;222&gt; (12)..(12)

&lt;223&gt; Xaa = 1-amino-1-cyclopentanecarboxylic acid (A5c)

&lt;220&gt;

&lt;221&gt; MISC\_FEATURE

&lt;222&gt; (15)..(15)

&lt;223&gt; Xaa = ornithine (Orn)

&lt;220&gt;

&lt;221&gt; MOD\_RES

&lt;222&gt; (28)..(28)

&lt;223&gt; AMIDATION

&lt;400&gt; 32

Gly Ser Xaa Phe Leu Ser Pro Glu His Gln Arg Xaa Gln Gln Xaa Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 33  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>  
 <221> MISC\_FEATURE  
 <222> (3)..(3)  
 <223> Xaa = 2,3-diaminopropionic acid (Dap) or 2,4-diaminobutyric acid (Dab), both modified with octanesulfonyl

<220>  
 <221> MISC\_FEATURE  
 <222> (12)..(12)  
 <223> Xaa = 1-amino-1-cyclopentanecarboxylic acid (A5c)

<220>  
 <221> MISC\_FEATURE  
 <222> (16)..(16)  
 <223> Xaa = Apc

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 33

Gly Ser Xaa Phe Leu Ser Pro Glu His Gln Arg Xaa Gln Gln Arg Xaa  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 34  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>  
 <221> MISC\_FEATURE  
 <222> (3)..(3)  
 <223> Xaa = 2,3-diaminopropionic acid (Dap) modified with octanesulfonyl

<220>  
 <221> MISC\_FEATURE  
 <222> (9)..(9)  
 <223> Xaa = beta-(3-pyridinyl)Ala (3Pal), beta-(2-pyridinyl)Ala (2Pal), beta-(4-pyridinyl)Ala (4Pal), beta-(4-thiazolyl)Ala (Taz), beta-(2-thienyl)Ala (2Thi), beta-(2-furyl)-Ala (2Fua), Apc, or alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 34

Gly Ser Xaa Phe Leu Ser Pro Glu Xaa Gln Arg Val Gln Gln Arg Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 35  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>  
 <221> MISC\_FEATURE  
 <222> (3)..(3)  
 <223> Xaa = 2,3-diaminopropionic acid (Dap) modified with  
 octanesulfonyl

<220>  
 <221> MISC\_FEATURE  
 <222> (7)..(7)  
 <223> Xaa = 5,5-dimethylthiazolidine-4-carboxylic acid (Dmt),  
 thiazolidine-4-carboxylic acid (Thz), 4-hydroxyPro (4Hyp),  
 pipecolic acid (Pip), 3,4-dehydroPro (Dhp), or 4-ketoPro (Ktp)

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 35

Gly Ser Xaa Phe Leu Ser Xaa Glu His Gln Arg Val Gln Gln Arg Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 36  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>

<221> MISC\_FEATURE  
 <222> (3)..(3)  
 <223> Xaa = 2,3-diaminopropionic acid (Dap) modified with octanesulfonyl, or Glu modified with NH-hexyl

<220>  
 <221> MISC\_FEATURE  
 <222> (8)..(8)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 36

Gly Ser Xaa Phe Leu Ser Pro Xaa His Gln Arg Val Gln Gln Arg Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 37  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>  
 <221> MISC\_FEATURE  
 <222> (3)..(3)  
 <223> Xaa = 2,3-diaminopropionic acid (Dap) modified with octanesulfonyl, or Glu modified with NH-hexyl

<220>  
 <221> MISC\_FEATURE  
 <222> (10)..(10)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 37

Gly Ser Xaa Phe Leu Ser Pro Glu His Xaa Arg Val Gln Gln Arg Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 38  
 <211> 28  
 <212> PRT

<213> Artificial

<220>

<223> Ghrelin Analog

<220>

<221> MISC\_FEATURE

<222> (2)..(2)

<223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>

<221> MISC\_FEATURE

<222> (5)..(5)

<223> Xaa = 1-amino-1-cyclohexanecarboxylic acid (A6c),  
1-amino-1-cyclopentanecarboxylic acid (A5c),  
alpha-aminoisobutyric acid (Aib), homoLeu, or beta-cyclohexylAla  
(Cha)

<220>

<221> MISC\_FEATURE

<222> (12)..(12)

<223> Xaa = 1-amino-1-cyclopentanecarboxylic acid (A5c)

<220>

<221> MISC\_FEATURE

<222> (15)..(15)

<223> Xaa = ornithine (Orn)

<220>

<221> MOD\_RES

<222> (28)..(28)

<223> AMIDATION

<400> 38

Gly Xaa Ser Phe Xaa Ser Pro Glu His Gln Arg Xaa Gln Gln Xaa Lys  
1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
20 25

<210> 39

<211> 28

<212> PRT

<213> Artificial

<220>

<223> Ghrelin Analog

<220>

<221> MISC\_FEATURE

<222> (5)..(5)

<223> Xaa = 1-amino-1-cyclohexanecarboxylic acid (A6c),  
1-amino-1-cyclopentanecarboxylic acid (A5c),  
alpha-aminoisobutyric acid (Aib), homoLeu, or beta-cyclohexylAla  
(Cha)

<220>

<221> MISC\_FEATURE

&lt;222&gt; (12)..(12)

&lt;223&gt; Xaa = 1-amino-1-cyclopentanecarboxylic acid (A5c)

&lt;220&gt;

&lt;221&gt; MISC\_FEATURE

&lt;222&gt; (15)..(15)

&lt;223&gt; Xaa = ornithine (Orn)

&lt;220&gt;

&lt;221&gt; MOD\_RES

&lt;222&gt; (28)..(28)

&lt;223&gt; AMIDATION

&lt;400&gt; 39

Gly Ser Ser Phe Xaa Ser Pro Glu His Gln Arg Xaa Gln Gln Xaa Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

&lt;210&gt; 40

&lt;211&gt; 28

&lt;212&gt; PRT

&lt;213&gt; Artificial

&lt;220&gt;

&lt;223&gt; Ghrelin Analog

&lt;220&gt;

&lt;221&gt; MISC\_FEATURE

&lt;222&gt; (2)..(2)

&lt;223&gt; Xaa = alpha-aminoisobutyric acid (Aib)

&lt;220&gt;

&lt;221&gt; MISC\_FEATURE

&lt;222&gt; (6)..(6)

<223> Xaa = alpha-aminoisobutyric acid (Aib),  
4-amino-4-carboxytetrahydropyran (Act), Thr, or  
alpha-aminobutyric acid (Abu)

&lt;220&gt;

&lt;221&gt; MISC\_FEATURE

&lt;222&gt; (12)..(12)

&lt;223&gt; Xaa = 1-amino-1-cyclopentanecarboxylic acid (A5c)

&lt;220&gt;

&lt;221&gt; MISC\_FEATURE

&lt;222&gt; (15)..(15)

&lt;223&gt; Xaa = ornithine (Orn)

&lt;220&gt;

&lt;221&gt; MOD\_RES

&lt;222&gt; (28)..(28)

&lt;223&gt; AMIDATION

&lt;400&gt; 40

Gly Xaa Ser Phe Leu Xaa Pro Glu His Gln Arg Xaa Gln Gln Xaa Lys  
 1 5 10 15



Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
           20                          25

<210> 41  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>  
 <221> MISC\_FEATURE  
 <222> (2)..(2)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MISC\_FEATURE  
 <222> (9)..(9)  
 <223> Xaa = beta-(3-pyridinyl)Ala (3Pal), beta-(2-pyridinyl)Ala (2Pal),  
 beta-(4-pyridinyl)Ala (4Pal), beta-(4-thiazolyl)Ala (Taz),  
 beta-(2-thienyl)Ala (2Thi), beta-(2-furyl)-Ala (2Fua), Apc, or  
 1-amino-1-cyclopentanecarboxylic acid (A5c)

<220>  
 <221> MISC\_FEATURE  
 <222> (12)..(12)  
 <223> Xaa = 1-amino-1-cyclopentanecarboxylic acid (A5c)

<220>  
 <221> MISC\_FEATURE  
 <222> (15)..(15)  
 <223> Xaa = ornithine (Orn)

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 41

Gly Xaa Ser Phe Leu Ser Pro Glu Xaa Gln Arg Xaa Gln Gln Xaa Lys  
   1                  5                  10                  15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
           20                          25

<210> 42  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>

<221> MISC\_FEATURE  
 <222> (2)..(2)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)  
  
 <220>  
 <221> MISC\_FEATURE  
 <222> (7)..(7)  
 <223> Xaa = 5,5-dimethylthiazolidine-4-carboxylic acid (Dmt),  
 thiazolidine-4-carboxylic acid (Thz), 4-hydroxyPro (4Hyp),  
 pipecolic acid (Pip), 3,4-dehydroPro (Dhp), or 4-ketoPro (Ktp)  
  
 <220>  
 <221> MISC\_FEATURE  
 <222> (12)..(12)  
 <223> Xaa = 1-amino-1-cyclopentanecarboxylic acid (A5c)  
  
 <220>  
 <221> MISC\_FEATURE  
 <222> (15)..(15)  
 <223> Xaa = ornithine (Orn)  
  
 <220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION  
  
 <400> 42

Gly Xaa Ser Phe Leu Ser Xaa Glu His Gln Arg Xaa Gln Gln Xaa Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 43  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>  
 <221> MISC\_FEATURE  
 <222> (2)..(2)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MISC\_FEATURE  
 <222> (8)..(8)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MISC\_FEATURE  
 <222> (12)..(12)  
 <223> Xaa = 1-amino-1-cyclopentanecarboxylic acid (A5c)

<220>  
 <221> MISC\_FEATURE  
 <222> (15)..(15)

<223> Xaa = ornithine (Orn)

<220>

<221> MOD\_RES

<222> (28)..(28)

<223> AMIDATION

<400> 43

Gly Xaa Ser Phe Leu Ser Pro Xaa His Gln Arg Xaa Gln Gln Xaa Lys  
1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
20 25

<210> 44

<211> 28

<212> PRT

<213> Artificial

<220>

<223> Ghrelin Analog

<220>

<221> MISC\_FEATURE

<222> (2)..(2)

<223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>

<221> MISC\_FEATURE

<222> (10)..(10)

<223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>

<221> MISC\_FEATURE

<222> (12)..(12)

<223> Xaa = 1-amino-1-cyclopentanecarboxylic acid (A5c)

<220>

<221> MISC\_FEATURE

<222> (15)..(15)

<223> Xaa = ornithine (Orn)

<220>

<221> MOD\_RES

<222> (28)..(28)

<223> AMIDATION

<400> 44

Gly Xaa Ser Phe Leu Ser Pro Glu His Xaa Arg Xaa Gln Gln Xaa Lys  
1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
20 25

<210> 45

<211> 28

<212> PRT  
<213> Artificial

<220>  
<223> Ghrelin Analog

<220>  
<221> MISC\_FEATURE  
<222> (2)..(2)  
<223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
<221> MISC\_FEATURE  
<222> (5)..(5)  
<223> Xaa = 1-amino-1-cyclohexanecarboxylic acid (A6c),  
1-amino-1-cyclopentanecarboxylic acid (A5c),  
alpha-aminoisobutyric acid (Aib), homoLeu, or beta-cyclohexylAla  
(Cha)

<220>  
<221> MISC\_FEATURE  
<222> (12)..(12)  
<223> Xaa = 1-amino-1-cyclopentanecarboxylic acid (A5c)

<220>  
<221> MISC\_FEATURE  
<222> (16)..(16)  
<223> Xaa = Apc

<220>  
<221> MOD\_RES  
<222> (28)..(28)  
<223> AMIDATION

<400> 45

Gly Xaa Ser Phe Xaa Ser Pro Glu His Gln Arg Xaa Gln Gln Arg Xaa  
1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
20 25

<210> 46  
<211> 28  
<212> PRT  
<213> Artificial

<220>  
<223> Ghrelin Analog

<220>  
<221> MISC\_FEATURE  
<222> (5)..(5)  
<223> Xaa = 1-amino-1-cyclohexanecarboxylic acid (A6c),  
1-amino-1-cyclopentanecarboxylic acid (A5c),  
alpha-aminoisobutyric acid (Aib), homoLeu, or beta-cyclohexylAla  
(Cha)

<220>

<221> MISC\_FEATURE  
 <222> (12)..(12)  
 <223> Xaa = 1-amino-1-cyclopentanecarboxylic acid (A5c)

<220>  
 <221> MISC\_FEATURE  
 <222> (16)..(16)  
 <223> Xaa = Apc

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 46

Gly Ser Ser Phe Xaa Ser Pro Glu His Gln Arg Xaa Gln Gln Arg Xaa  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 47  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>  
 <221> MISC\_FEATURE  
 <222> (2)..(2)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MISC\_FEATURE  
 <222> (6)..(6)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib),  
 4-amino-4-carboxytetrahydropyran (Act), Thr, or  
 alpha-aminobutyric acid (Abu)

<220>  
 <221> MISC\_FEATURE  
 <222> (12)..(12)  
 <223> Xaa = 1-amino-1-cyclopentanecarboxylic acid (A5c)

<220>  
 <221> MISC\_FEATURE  
 <222> (16)..(16)  
 <223> Xaa = Apc

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 47

Gly Xaa Ser Phe Leu Xaa Pro Glu His Gln Arg Xaa Gln Gln Arg Xaa

1

5

10

15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
           20                  25

<210> 48  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>  
 <221> MISC\_FEATURE  
 <222> (2)..(2)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MISC\_FEATURE  
 <222> (9)..(9)  
 <223> Xaa = beta-(3-pyridinyl)Ala (3Pal), beta-(2-pyridinyl)Ala (2Pal),  
 beta-(4-pyridinyl)Ala (4Pal), beta-(4-thiazolyl)Ala (Taz),  
 beta-(2-thienyl)Ala (2Thi), beta-(2-furyl)-Ala (2Fua), Apc, or  
 1-amino-1-cyclopentanecarboxylic acid (A5c)

<220>  
 <221> MISC\_FEATURE  
 <222> (12)..(12)  
 <223> Xaa = 1-amino-1-cyclopentanecarboxylic acid (A5c)

<220>  
 <221> MISC\_FEATURE  
 <222> (16)..(16)  
 <223> Xaa = Apc

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 48

Gly Xaa Ser Phe Leu Ser Pro Glu Xaa Gln Arg Xaa Gln Gln Arg Xaa  
 1                  5                  10                  15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
           20                  25

<210> 49  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>  
 <221> MISC\_FEATURE  
 <222> (2)..(2)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)  
  
 <220>  
 <221> MISC\_FEATURE  
 <222> (7)..(7)  
 <223> Xaa = 5,5-dimethylthiazolidine-4-carboxylic acid (Dmt),  
 thiazolidine-4-carboxylic acid (Thz), 4-hydroxyPro (4Hyp),  
 pipecolic acid (Pip), 3,4-dehydroPro (Dhp), or 4-ketoPro (Ktp)  
  
 <220>  
 <221> MISC\_FEATURE  
 <222> (12)..(12)  
 <223> Xaa = 1-amino-1-cyclopentanecarboxylic acid (A5c)  
  
 <220>  
 <221> MISC\_FEATURE  
 <222> (16)..(16)  
 <223> Xaa = Apc  
  
 <220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION  
  
 <400> 49

Gly Xaa Ser Phe Leu Ser Xaa Glu His Gln Arg Xaa Gln Gln Arg Xaa  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 50  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>  
 <221> MISC\_FEATURE  
 <222> (2)..(2)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MISC\_FEATURE  
 <222> (8)..(8)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MISC\_FEATURE  
 <222> (12)..(12)  
 <223> Xaa = 1-amino-1-cyclopentanecarboxylic acid (A5c)

<220>  
 <221> MISC\_FEATURE

<222> (16)..(16)  
 <223> Xaa = Apc

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 50

Gly Xaa Ser Phe Leu Ser Pro Xaa His Gln Arg Xaa Gln Gln Arg Xaa  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 51  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>  
 <221> MISC\_FEATURE  
 <222> (2)..(2)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MISC\_FEATURE  
 <222> (10)..(10)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MISC\_FEATURE  
 <222> (12)..(12)  
 <223> Xaa = 1-amino-1-cyclopentanecarboxylic acid (A5c)

<220>  
 <221> MISC\_FEATURE  
 <222> (16)..(16)  
 <223> Xaa = Apc

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 51

Gly Xaa Ser Phe Leu Ser Pro Glu His Xaa Arg Xaa Gln Gln Arg Xaa  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 52



<211> 28  
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<220>  
 <223> Ghrelin Analog

<220>  
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 <222> (6)..(6)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib),  
 4-amino-4-carboxytetrahydropyran (Act), Thr, or  
 alpha-aminobutyric acid (Abu)

<220>  
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 <222> (12)..(12)  
 <223> Xaa = 1-amino-1-cyclopentanecarboxylic acid (A5c)

<220>  
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 <222> (15)..(15)  
 <223> Xaa = ornithine (Orn)

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 52

Gly Ser Ser Phe Leu Xaa Pro Glu His Gln Arg Xaa Gln Gln Xaa Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 53  
 <211> 28  
 <212> PRT  
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<220>  
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<220>  
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 <223> Xaa = beta-(3-pyridinyl)Ala (3Pal), beta-(2-pyridinyl)Ala (2Pal),  
 beta-(4-pyridinyl)Ala (4Pal), beta-(4-thiazolyl)Ala (Taz),  
 beta-(2-thienyl)Ala (2Thi), beta-(2-furyl)-Ala (2Fua), Apc, or  
 alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MISC\_FEATURE  
 <222> (12)..(12)  
 <223> Xaa = beta-(3-pyridinyl)Ala (A5c)

<220>

<221> MISC\_FEATURE  
 <222> (15)..(15)  
 <223> Xaa = ornithine (Orn)

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 53

Gly Ser Ser Phe Leu Ser Pro Glu Xaa Gln Arg Xaa Gln Gln Xaa Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 54  
 <211> 28  
 <212> PRT  
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<220>  
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<220>  
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 <223> Xaa = 5,5-dimethylthiazolidine-4-carboxylic acid (Dmt),  
 thiazolidine-4-carboxylic acid (Thz), 4-hydroxyPro (4Hyp),  
 pipecolic acid (Pip), 3,4-dehydroPro (Dhp), or 4-ketoPro (Ktp)

<220>  
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 <222> (12)..(12)  
 <223> Xaa = 1-amino-1-cyclopentanecarboxylic acid (A5c)

<220>  
 <221> MISC\_FEATURE  
 <222> (15)..(15)  
 <223> Xaa = ornithine (Orn)

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 54

Gly Ser Ser Phe Leu Ser Xaa Glu His Gln Arg Xaa Gln Gln Xaa Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 55  
 <211> 28  
 <212> PRT

<213> Artificial

<220>

<223> Ghrelin Analog

<220>

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<222> (8)..(8)

<223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>

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<222> (12)..(12)

<223> Xaa = 1-amino-1-cyclopentanecarboxylic acid (A5c)

<220>

<221> MISC\_FEATURE

<222> (15)..(15)

<223> Xaa = ornithine (Orn)

<220>

<221> MOD\_RES

<222> (28)..(28)

<223> AMIDATION

<400> 55

Gly Ser Ser Phe Leu Ser Pro Xaa His Gln Arg Xaa Gln Gln Xaa Lys  
1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
20 25

<210> 56

<211> 28

<212> PRT

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<223> Ghrelin Analog

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<223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>

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<222> (12)..(12)

<223> Xaa = 1-amino-1-cyclopentanecarboxylic acid (A5c)

<220>

<221> MISC\_FEATURE

<222> (15)..(15)

<223> Xaa = ornithine (Orn)

<220>

<221> MOD\_RES

<222> (28)..(28)

&lt;223&gt; AMIDATION

&lt;400&gt; 56

Gly Ser Ser Phe Leu Ser Pro Glu His Xaa Arg Xaa Gln Gln Xaa Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

&lt;210&gt; 57

&lt;211&gt; 28

&lt;212&gt; PRT

&lt;213&gt; Artificial

&lt;220&gt;

&lt;223&gt; Ghrelin Analog

&lt;220&gt;

&lt;221&gt; MISC\_FEATURE

&lt;222&gt; (6)..(6)

<223> Xaa = alpha-aminoisobutyric acid (Aib),  
 4-amino-4-carboxytetrahydropyran (Act), Thr, or  
 alpha-aminobutyric acid (Abu)

&lt;220&gt;

&lt;221&gt; MISC\_FEATURE

&lt;222&gt; (12)..(12)

<223> Xaa = 1-amino-1-cyclopentanecarboxylic acid (A5c)

&lt;220&gt;

&lt;221&gt; MISC\_FEATURE

&lt;222&gt; (16)..(16)

&lt;223&gt; Xaa = Apc

&lt;220&gt;

&lt;221&gt; MOD\_RES

&lt;222&gt; (28)..(28)

&lt;223&gt; AMIDATION

&lt;400&gt; 57

Gly Ser Ser Phe Leu Xaa Pro Glu His Gln Arg Xaa Gln Gln Arg Xaa  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

&lt;210&gt; 58

&lt;211&gt; 28

&lt;212&gt; PRT

&lt;213&gt; Artificial

&lt;220&gt;

&lt;223&gt; Ghrelin Analog

&lt;220&gt;

<221> MISC\_FEATURE  
 <222> (9)..(9)  
 <223> Xaa = beta-(3-pyridinyl)Ala (3Pal), beta-(2-pyridinyl)Ala (2Pal),  
 beta-(4-pyridinyl)Ala (4Pal), beta-(4-thiazolyl)Ala (Taz),  
 beta-(2-thienyl)Ala (2Thi), beta-(2-furyl)-Ala (2Fua), Apc, or  
 alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MISC\_FEATURE  
 <222> (12)..(12)  
 <223> Xaa = 1-amino-1-cyclopentanecarboxylic acid (A5c)

<220>  
 <221> MISC\_FEATURE  
 <222> (16)..(16)  
 <223> Xaa = Apc

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 58

Gly Ser Ser Phe Leu Ser Pro Glu Xaa Gln Arg Xaa Gln Gln Arg Xaa  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 59  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
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<220>  
 <221> MISC\_FEATURE  
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 <223> Xaa = 5,5-dimethylthiazolidine-4-carboxylic acid (Dmt),  
 thiazolidine-4-carboxylic acid (Thz), 4-hydroxyPro (4Hyp),  
 pipecolic acid (Pip), 3,4-dehydroPro (Dhp), or 4-ketoPro (Ktp)

<220>  
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 <223> Xaa = 1-amino-1-cyclopentanecarboxylic acid (A5c)

<220>  
 <221> MISC\_FEATURE  
 <222> (16)..(16)  
 <223> Xaa = Apc

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

&lt;400&gt; 59

Gly Ser Ser Phe Leu Ser Xaa Glu His Gln Arg Xaa Gln Gln Arg Xaa  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

&lt;210&gt; 60

&lt;211&gt; 28

&lt;212&gt; PRT

&lt;213&gt; Artificial

&lt;220&gt;

&lt;223&gt; Ghrelin Analog

&lt;220&gt;

&lt;221&gt; MISC\_FEATURE

&lt;222&gt; (8)..(8)

&lt;223&gt; Xaa = alpha-aminoisobutyric acid (Aib)

&lt;220&gt;

&lt;221&gt; MISC\_FEATURE

&lt;222&gt; (12)..(12)

&lt;223&gt; Xaa = 1-amino-1-cyclopentanecarboxylic acid (A5c)

&lt;220&gt;

&lt;221&gt; MISC\_FEATURE

&lt;222&gt; (16)..(16)

&lt;223&gt; Xaa = Apc

&lt;220&gt;

&lt;221&gt; MOD\_RES

&lt;222&gt; (28)..(28)

&lt;223&gt; AMIDATION

&lt;400&gt; 60

Gly Ser Ser Phe Leu Ser Pro Xaa His Gln Arg Xaa Gln Gln Arg Xaa  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

&lt;210&gt; 61

&lt;211&gt; 28

&lt;212&gt; PRT

&lt;213&gt; Artificial

&lt;220&gt;

&lt;223&gt; Ghrelin Analog

&lt;220&gt;

&lt;221&gt; MISC\_FEATURE

&lt;222&gt; (10)..(10)

&lt;223&gt; Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MISC\_FEATURE  
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 <223> Xaa = 1-amino-1-cyclopentanecarboxylic acid (A5c)

<220>  
 <221> MISC\_FEATURE  
 <222> (16)..(16)  
 <223> Xaa = Apc

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 61

Gly Ser Ser Phe Leu Ser Pro Glu His Xaa Arg Xaa Gln Gln Arg Xaa  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 62  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>  
 <221> MISC\_FEATURE  
 <222> (2)..(2)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MOD\_RES  
 <222> (3)..(3)  
 <223> modified with NH-hexyl

<220>  
 <221> MISC\_FEATURE  
 <222> (5)..(5)  
 <223> Xaa = 1-amino-1-cyclohexanecarboxylic acid (A6c),  
 1-amino-1-cyclopentanecarboxylic acid (A5c),  
 alpha-aminoisobutyric acid (Aib), or homoLeu

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 62

Gly Xaa Glu Phe Xaa Ser Pro Glu His Gln Arg Val Gln Gln Arg Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 Page 39

<210> 63  
<211> 28  
<212> PRT  
<213> Artificial

<220>  
<223> Ghrelin Analog

<220>  
<221> MOD\_RES  
<222> (3)..(3)  
<223> modified with NH-hexyl

<220>  
<221> MISC\_FEATURE  
<222> (5)..(5)  
<223> Xaa = 1-amino-1-cyclohexanecarboxylic acid (A6c),  
1-amino-1-cyclopentanecarboxylic acid (A5c),  
alpha-aminoisobutyric acid (Aib), homoLeu, or beta-cyclohexylAla  
(Cha)

<220>  
<221> MOD\_RES  
<222> (28)..(28)  
<223> AMIDATION

<400> 63

Gly Ser Glu Phe Xaa Ser Pro Glu His Gln Arg Val Gln Gln Arg Lys  
1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
20 25

<210> 64  
<211> 28  
<212> PRT  
<213> Artificial

<220>  
<223> Ghrelin Analog

<220>  
<221> MISC\_FEATURE  
<222> (2)..(2)  
<223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
<221> MOD\_RES  
<222> (3)..(3)  
<223> modified with NH-hexyl

<220>  
<221> MISC\_FEATURE  
<222> (6)..(6)  
<223> Xaa = alpha-aminoisobutyric acid (Aib) or



83127-11\_seq\_list\_mar\_2008.ST25.txt  
 4-amino-4-carboxytetrahydropyran (Act), Thr, or  
 alpha-aminobutyric acid (Abu)

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 64

Gly Xaa Glu Phe Leu Xaa Pro Glu His Gln Arg Val Gln Gln Arg Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 65  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>  
 <221> MISC\_FEATURE  
 <222> (2)..(2)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MOD\_RES  
 <222> (3)..(3)  
 <223> modified with NH-hexyl

<220>  
 <221> MISC\_FEATURE  
 <222> (9)..(9)  
 <223> Xaa = beta-(3-pyridinyl)Ala (3Pal), beta-(2-pyridinyl)Ala (2Pal),  
 beta-(4-pyridinyl)Ala (4Pal), beta-(4-thiazolyl)Ala (Taz),  
 beta-(2-thienyl)Ala (2Thi), alpha-aminoisobutyric acid (2Fua),  
 Apc, or alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 65

Gly Xaa Glu Phe Leu Ser Pro Glu Xaa Gln Arg Val Gln Gln Arg Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 66  
 <211> 28  
 <212> PRT

<213> Artificial

<220>

<223> Ghrelin Analog

<220>

<221> MISC\_FEATURE

<222> (2)..(2)

<223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>

<221> MOD\_RES

<222> (3)..(3)

<223> modified with NH-hexyl

<220>

<221> MISC\_FEATURE

<222> (7)..(7)

<223> Xaa = 5,5-dimethylthiazolidine-4-carboxylic acid (Dmt),  
thiazolidine-4-carboxylic acid (Thz), 4-hydroxyPro (4Hyp),  
pipecolic acid (Pip), 3,4-dehydroPro (Dhp), or 4-ketoPro (Ktp)

<220>

<221> MOD\_RES

<222> (28)..(28)

<223> AMIDATION

<400> 66

Gly Xaa Glu Phe Leu Ser Xaa Glu His Gln Arg Val Gln Gln Arg Lys  
1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
20 25

<210> 67

<211> 28

<212> PRT

<213> Artificial

<220>

<223> Ghrelin Analog

<220>

<221> MISC\_FEATURE

<222> (2)..(2)

<223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>

<221> MOD\_RES

<222> (3)..(3)

<223> modified with NH-hexyl

<220>

<221> MISC\_FEATURE

<222> (8)..(8)

<223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>

<221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 67

Gly Xaa Glu Phe Leu Ser Pro Xaa His Gln Arg Val Gln Gln Arg Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 68  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>  
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 <222> (2)..(2)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MOD\_RES  
 <222> (3)..(3)  
 <223> modified with NH-hexyl

<220>  
 <221> MISC\_FEATURE  
 <222> (10)..(10)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 68

Gly Xaa Glu Phe Leu Ser Pro Glu His Xaa Arg Val Gln Gln Arg Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 69  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>

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 <223> modified with NH-hexyl

<220>  
 <221> MISC\_FEATURE  
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 <223> Xaa = alpha-aminoisobutyric acid (Aib),  
 4-amino-4-carboxytetrahydropyran (Act), Thr, or  
 alpha-aminobutyric acid (Abu)

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 69

Gly Ser Glu Phe Leu Xaa Pro Glu His Gln Arg Val Gln Gln Arg Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 70  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
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<220>  
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 <223> modified with NH-hexyl

<220>  
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 <222> (9)..(9)  
 <223> Xaa = beta-(3-pyridinyl)Ala (3Pal), beta-(2-pyridinyl)Ala (2Pal),  
 beta-(4-pyridinyl)Ala (4Pal), beta-(4-thiazolyl)Ala (Taz),  
 beta-(2-thienyl)Ala (2Thi), alpha-aminoisobutyric acid (2Fua),  
 Apc, or alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 70

Gly Ser Glu Phe Leu Ser Pro Glu Xaa Gln Arg Val Gln Gln Arg Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 71  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
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<220>  
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 <223> modified with NH-hexyl

<220>  
 <221> MISC\_FEATURE  
 <222> (7)..(7)  
 <223> Xaa = 5,5-dimethylthiazolidine-4-carboxylic acid (Dmt),  
 thiazolidine-4-carboxylic acid (Thz), 4-hydroxyPro (4Hyp),  
 pipecolic acid (Pip), 3,4-dehydroPro (Dhp), or 4-ketoPro (Ktp)

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 71

Gly Ser Glu Phe Leu Ser Xaa Glu His Gln Arg Val Gln Gln Arg Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 72  
 <211> 28  
 <212> PRT  
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<220>  
 <223> Ghrelin Analog

<220>  
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 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MOD\_RES  
 <222> (3)..(3)  
 <223> modified with NH-hexyl

<220>  
 <221> MISC\_FEATURE  
 <222> (5)..(5)  
 <223> Xaa = 1-amino-1-cyclohexanecarboxylic acid (A6c),  
 1-amino-1-cyclopentanecarboxylic acid (A5c),  
 alpha-aminoisobutyric acid (Aib), or beta-cyclohexylAla (Cha)

<220>

<221> MISC\_FEATURE  
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 <223> Xaa = 1-amino-1-cyclopentanecarboxylic acid (A5c)

<220>  
 <221> MISC\_FEATURE  
 <222> (15)..(15)  
 <223> Xaa = ornithine (Orn)

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 72

Gly Xaa Glu Phe Xaa Ser Pro Glu His Gln Arg Xaa Gln Gln Xaa Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 73  
 <211> 28  
 <212> PRT  
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<220>  
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<220>  
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 <222> (3)..(3)  
 <223> modified with NH-hexyl

<220>  
 <221> MISC\_FEATURE  
 <222> (5)..(5)  
 <223> Xaa = 1-amino-1-cyclohexanecarboxylic acid (A6c)

<220>  
 <221> MISC\_FEATURE  
 <222> (12)..(12)  
 <223> Xaa = 1-amino-1-cyclopentanecarboxylic acid (A5c)

<220>  
 <221> MISC\_FEATURE  
 <222> (15)..(15)  
 <223> Xaa = ornithine (Orn)

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 73

Gly Ser Glu Phe Xaa Ser Pro Glu His Gln Arg Xaa Gln Gln Xaa Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 74  
 <211> 28  
 <212> PRT  
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<220>  
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<220>  
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 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MOD\_RES  
 <222> (3)..(3)  
 <223> modified with NH-hexyl

<220>  
 <221> MISC\_FEATURE  
 <222> (6)..(6)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib),  
 4-amino-4-carboxytetrahydropyran (Act), Thr, or  
 alpha-aminobutyric acid (Abu)

<220>  
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 <223> Xaa = 1-amino-1-cyclopentanecarboxylic acid (A5c)

<220>  
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 <222> (15)..(15)  
 <223> Xaa = ornithine (Orn)

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 74

Gly Xaa Glu Phe Leu Xaa Pro Glu His Gln Arg Xaa Gln Gln Xaa Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 75  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

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<220>
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<223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>
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<223> modified with NH-hexyl

<220>
<221> MISC_FEATURE
<222> (9)..(9)
<223> Xaa = beta-(3-pyridinyl)Ala (3Pal), beta-(2-pyridinyl)Ala (2Pal),
      beta-(4-pyridinyl)Ala (4Pal), beta-(4-thiazolyl)Ala (Taz),
      beta-(2-thienyl)Ala (2Thi), alpha-aminoisobutyric acid (2Fua),
      (Apc), or alpha-aminoisobutyric acid (Aib)

<220>
<221> MISC_FEATURE
<222> (12)..(12)
<223> Xaa = 1-amino-1-cyclopentanecarboxylic acid (A5c)

<220>
<221> MISC_FEATURE
<222> (15)..(15)
<223> Xaa = ornithine (Orn)

<220>
<221> MOD_RES
<222> (28)..(28)
<223> AMIDATION

<400> 75

Gly Xaa Glu Phe Leu Ser Pro Glu Xaa Gln Arg Xaa Gln Gln Xaa Lys
1          5          10          15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg
          20          25

<210> 76
<211> 28
<212> PRT
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<220>
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<220>
<221> MISC_FEATURE
<222> (2)..(2)
<223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>
<221> MOD_RES
<222> (3)..(3)
<223> modified with NH-hexyl

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<220>  
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 <222> (7)..(7)  
 <223> Xaa = 5,5-dimethylthiazolidine-4-carboxylic acid (Dmt),  
 thiazolidine-4-carboxylic acid (Thz), 4-hydroxyPro (4Hyp),  
 pipecolic acid (Pip), 3,4-dehydroPro (Dhp), or 4-ketoPro (Ktp)

<220>  
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 <223> Xaa = 1-amino-1-cyclopentanecarboxylic acid (A5c)

<220>  
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 <222> (15)..(15)  
 <223> Xaa = ornithine (Orn)

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 76

Gly Xaa Glu Phe Leu Ser Xaa Glu His Gln Arg Xaa Gln Gln Xaa Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 77  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>  
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 <222> (2)..(2)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MOD\_RES  
 <222> (3)..(3)  
 <223> modified with NH-hexyl

<220>  
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 <222> (8)..(8)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MISC\_FEATURE  
 <222> (12)..(12)  
 <223> Xaa = 1-amino-1-cyclopentanecarboxylic acid (A5c)

<220>

<221> MISC\_FEATURE  
 <222> (15)..(15)  
 <223> Xaa = ornithine (Orn)

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 77

Gly Xaa Glu Phe Leu Ser Pro Xaa His Gln Arg Xaa Gln Gln Xaa Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 78  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>  
 <221> MISC\_FEATURE  
 <222> (2)..(2)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
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 <222> (3)..(3)  
 <223> modified with NH-hexyl

<220>  
 <221> MISC\_FEATURE  
 <222> (10)..(10)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MISC\_FEATURE  
 <222> (12)..(12)  
 <223> Xaa = 1-amino-1-cyclopentanecarboxylic acid (A5c)

<220>  
 <221> MISC\_FEATURE  
 <222> (15)..(15)  
 <223> Xaa = ornithine (Orn)

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 78

Gly Xaa Glu Phe Leu Ser Pro Glu His Xaa Arg Xaa Gln Gln Xaa Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 79  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>  
 <221> MISC\_FEATURE  
 <222> (2)..(2)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MOD\_RES  
 <222> (3)..(3)  
 <223> modified with NH-hexyl

<220>  
 <221> MISC\_FEATURE  
 <222> (5)..(5)  
 <223> Xaa = 1-amino-1-cyclohexanecarboxylic acid (A6c),  
 1-amino-1-cyclopentanecarboxylic acid (A5c),  
 alpha-aminoisobutyric acid (Aib), homoLeu, or beta-cyclohexylAla  
 (Cha)

<220>  
 <221> MISC\_FEATURE  
 <222> (12)..(12)  
 <223> Xaa = 1-amino-1-cyclopentanecarboxylic acid (A5c)

<220>  
 <221> MISC\_FEATURE  
 <222> (16)..(16)  
 <223> Xaa = Apc

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 79

Gly Xaa Glu Phe Xaa Ser Pro Glu His Gln Arg Xaa Gln Gln Arg Xaa  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 80  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>

<223> Ghrelin Analog

<220>

<221> MOD\_RES

<222> (3)..(3)

<223> modified with NH-hexyl

<220>

<221> MISC\_FEATURE

<222> (5)..(5)

<223> Xaa = 1-amino-1-cyclohexanecarboxylic acid (A6c)

<220>

<221> MISC\_FEATURE

<222> (12)..(12)

<223> Xaa = 1-amino-1-cyclopentanecarboxylic acid (A5c)

<220>

<221> MISC\_FEATURE

<222> (16)..(16)

<223> Xaa = Apc

<220>

<221> MOD\_RES

<222> (28)..(28)

<223> AMIDATION

<400> 80

Gly Ser Glu Phe Xaa Ser Pro Glu His Gln Arg Xaa Gln Gln Arg Xaa  
1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
20 25

<210> 81

<211> 28

<212> PRT

<213> Artificial

<220>

<223> Ghrelin Analog

<220>

<221> MISC\_FEATURE

<222> (2)..(2)

<223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>

<221> MOD\_RES

<222> (3)..(3)

<223> modified with NH-hexyl

<220>

<221> MISC\_FEATURE

<222> (6)..(6)

<223> Xaa = alpha-aminoisobutyric acid (Aib),  
4-amino-4-carboxytetrahydropyran (Act), Thr, or  
alpha-aminobutyric acid (Abu)

<220>  
 <221> MISC\_FEATURE  
 <222> (12)..(12)  
 <223> Xaa = 1-amino-1-cyclopentanecarboxylic acid (A5c)

<220>  
 <221> MISC\_FEATURE  
 <222> (16)..(16)  
 <223> Xaa = Apc

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 81

Gly Xaa Glu Phe Leu Xaa Pro Glu His Gln Arg Xaa Gln Gln Arg Xaa  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 82  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>  
 <221> MISC\_FEATURE  
 <222> (2)..(2)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MOD\_RES  
 <222> (3)..(3)  
 <223> modified with NH-hexyl

<220>  
 <221> MISC\_FEATURE  
 <222> (9)..(9)  
 <223> Xaa = beta-(3-pyridinyl)Ala (3Pal), beta-(2-pyridinyl)Ala (2Pal),  
 beta-(4-pyridinyl)Ala (4Pal), beta-(4-thiazolyl)Ala (Taz),  
 beta-(2-thienyl)Ala (2Thi), alpha-aminoisobutyric acid (2Fua),  
 (Apc), or alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MISC\_FEATURE  
 <222> (12)..(12)  
 <223> Xaa = 1-amino-1-cyclopentanecarboxylic acid (A5c)

<220>  
 <221> MISC\_FEATURE  
 <222> (16)..(16)  
 <223> Xaa = Apc

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<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 82

Gly Xaa Glu Phe Leu Ser Pro Glu Xaa Gln Arg Xaa Gln Gln Arg Xaa  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 83  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>  
 <221> MISC\_FEATURE  
 <222> (2)..(2)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MOD\_RES  
 <222> (3)..(3)  
 <223> modified with NH-hexyl

<220>  
 <221> MISC\_FEATURE  
 <222> (7)..(7)  
 <223> Xaa = 5,5-dimethylthiazolidine-4-carboxylic acid (Dmt),  
 thiazolidine-4-carboxylic acid (Thz), 4-hydroxyPro (4Hyp),  
 pipecolic acid (Pip), 3,4-dehydroPro (Dhp), or 4-ketoPro (Ktp)

<220>  
 <221> MISC\_FEATURE  
 <222> (12)..(12)  
 <223> Xaa = 1-amino-1-cyclopentanecarboxylic acid (A5c)

<220>  
 <221> MISC\_FEATURE  
 <222> (16)..(16)  
 <223> Xaa = Apc

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 83

Gly Xaa Glu Phe Leu Ser Xaa Glu His Gln Arg Xaa Gln Gln Arg Xaa  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 Page 54

<210> 84  
<211> 28  
<212> PRT  
<213> Artificial

<220>  
<223> Ghrelin Analog

<220>  
<221> MISC\_FEATURE  
<222> (2)..(2)  
<223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
<221> MOD\_RES  
<222> (3)..(3)  
<223> modified with NH-hexyl

<220>  
<221> MISC\_FEATURE  
<222> (8)..(8)  
<223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
<221> MISC\_FEATURE  
<222> (12)..(12)  
<223> Xaa = 1-amino-1-cyclopentanecarboxylic acid (A5c)

<220>  
<221> MISC\_FEATURE  
<222> (16)..(16)  
<223> Xaa = Apc

<220>  
<221> MOD\_RES  
<222> (28)..(28)  
<223> AMIDATION

<400> 84

Gly Xaa Glu Phe Leu Ser Pro Xaa His Gln Arg Xaa Gln Gln Arg Xaa  
1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
20 25

<210> 85  
<211> 28  
<212> PRT  
<213> Artificial

<220>  
<223> Ghrelin Analog

<220>  
<221> MISC\_FEATURE

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<222> (2)..(2)
<223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>
<221> MOD_RES
<222> (3)..(3)
<223> modified with NH-hexyl

<220>
<221> MISC_FEATURE
<222> (10)..(10)
<223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>
<221> MISC_FEATURE
<222> (12)..(12)
<223> Xaa = 1-amino-1-cyclopentanecarboxylic acid (A5c)

<220>
<221> MISC_FEATURE
<222> (16)..(16)
<223> Xaa = Apc

<220>
<221> MOD_RES
<222> (28)..(28)
<223> AMIDATION

<400> 85

Gly Xaa Glu Phe Leu Ser Pro Glu His Xaa Arg Xaa Gln Gln Arg Xaa
1          5          10          15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg
          20          25

<210> 86
<211> 28
<212> PRT
<213> Artificial

<220>
<223> Ghrelin Analog

<220>
<221> MOD_RES
<222> (3)..(3)
<223> modified with O-hexyl, or NH-hexyl

<220>
<221> MOD_RES
<222> (28)..(28)
<223> AMIDATION

<400> 86

Gly Ser Glu Phe Leu Ser Pro Glu His Gln Arg Val Gln Gln Arg Lys
1          5          10          15

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Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
                   20                                  25

<210> 87  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>  
 <221> MISC\_FEATURE  
 <222> (2)..(2)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MOD\_RES  
 <222> (3)..(3)  
 <223> modified with O-hexyl, or NH-hexyl

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 87

Gly Xaa Glu Phe Leu Ser Pro Glu His Gln Arg Val Gln Gln Arg Lys  
   1                  5                                  10                                  15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
                   20                                  25

<210> 88  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>  
 <221> MISC\_FEATURE  
 <222> (1)..(1)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MISC\_FEATURE  
 <222> (3)..(3)  
 <223> Xaa = Glu modified with NH-hexyl, or Dap (2,3-diaminopropionic acid) modified with 1-octanesulfonyl

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

&lt;400&gt; 88

Xaa Ser Xaa Phe Leu Ser Pro Glu His Gln Arg Val Gln Gln Arg Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

&lt;210&gt; 89

&lt;211&gt; 28

&lt;212&gt; PRT

&lt;213&gt; Artificial

&lt;220&gt;

&lt;223&gt; Ghrelin Analog

&lt;220&gt;

&lt;221&gt; MISC\_FEATURE

&lt;222&gt; (2)..(2)

&lt;223&gt; Xaa = alpha-aminoisobutyric acid (Aib)

&lt;220&gt;

&lt;221&gt; MISC\_FEATURE

&lt;222&gt; (3)..(3)

&lt;223&gt; Xaa = Dap (2,3-diaminopropionic acid) modified with 1-octanesulfonyl

&lt;220&gt;

&lt;221&gt; MOD\_RES

&lt;222&gt; (28)..(28)

&lt;223&gt; AMIDATION

&lt;400&gt; 89

Gly Xaa Xaa Phe Leu Ser Pro Glu His Gln Arg Val Gln Gln Arg Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

&lt;210&gt; 90

&lt;211&gt; 5

&lt;212&gt; PRT

&lt;213&gt; Artificial

&lt;220&gt;

&lt;223&gt; Ghrelin Analog

&lt;220&gt;

&lt;221&gt; MOD\_RES

&lt;222&gt; (1)..(1)

&lt;223&gt; modified with acyl (Ac)

&lt;220&gt;

&lt;221&gt; MOD\_RES

&lt;222&gt; (5)..(5)

&lt;223&gt; AMIDATION

<400> 90

Gly Ser Ser Phe Leu  
1 5

<210> 91  
<211> 6  
<212> PRT  
<213> Artificial

<220>  
<223> Ghrelin Analog

<220>  
<221> MOD\_RES  
<222> (1)..(1)  
<223> modified with acyl (Ac)

<220>  
<221> MOD\_RES  
<222> (6)..(6)  
<223> AMIDATION

<400> 91

Gly Ser Ser Phe Leu Ser  
1 5

<210> 92  
<211> 7  
<212> PRT  
<213> Artificial

<220>  
<223> Ghrelin Analog

<220>  
<221> MOD\_RES  
<222> (1)..(1)  
<223> modified with acyl (Ac)

<220>  
<221> MOD\_RES  
<222> (7)..(7)  
<223> AMIDATION

<400> 92

Gly Ser Ser Phe Leu Ser Pro  
1 5

<210> 93  
<211> 28  
<212> PRT  
<213> Artificial

<220>

<223> Ghrelin Analog

<220>

<221> MOD\_RES

<222> (1)..(1)

<223> modified with acyl (Ac)

<220>

<221> MISC\_FEATURE

<222> (2)..(2)

<223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>

<221> MOD\_RES

<222> (28)..(28)

<223> AMIDATION

<400> 93

Gly Xaa Ser Phe Leu Ser Pro Glu His Gln Arg Val Gln Gln Arg Lys  
1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
20 25

<210> 94

<211> 5

<212> PRT

<213> Artificial

<220>

<223> Ghrelin Analog

<220>

<221> MOD\_RES

<222> (1)..(1)

<223> modified with acyl (Ac)

<220>

<221> MISC\_FEATURE

<222> (2)..(2)

<223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>

<221> MOD\_RES

<222> (3)..(3)

<223> modified with NH-hexyl

<220>

<221> MOD\_RES

<222> (5)..(5)

<223> AMIDATION

<400> 94

Gly Xaa Glu Phe Leu  
1 5

<210> 95  
 <211> 6  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>  
 <221> MOD\_RES  
 <222> (1)..(1)  
 <223> modified with acyl (Ac)

<220>  
 <221> MISC\_FEATURE  
 <222> (2)..(2)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MOD\_RES  
 <222> (3)..(3)  
 <223> modified with NH-hexyl

<220>  
 <221> MOD\_RES  
 <222> (6)..(6)  
 <223> AMIDATION

<400> 95

Gly Xaa Glu Phe Leu Ser  
 1 5

<210> 96  
 <211> 7  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>  
 <221> MOD\_RES  
 <222> (1)..(1)  
 <223> modified with acyl (Ac)

<220>  
 <221> MISC\_FEATURE  
 <222> (2)..(2)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MOD\_RES  
 <222> (3)..(3)  
 <223> modified with NH-hexyl

<220>  
 <221> MOD\_RES  
 <222> (7)..(7)  
 <223> AMIDATION

&lt;400&gt; 96

Gly Xaa Glu Phe Leu Ser Pro  
 1 5

&lt;210&gt; 97

&lt;211&gt; 28

&lt;212&gt; PRT

&lt;213&gt; Artificial

&lt;220&gt;

&lt;223&gt; Ghrelin Analog

&lt;220&gt;

&lt;221&gt; MOD\_RES

&lt;222&gt; (1)..(1)

&lt;223&gt; modified with acyl (Ac)

&lt;220&gt;

&lt;221&gt; MISC\_FEATURE

&lt;222&gt; (2)..(2)

&lt;223&gt; Xaa = alpha-aminoisobutyric acid (Aib)

&lt;220&gt;

&lt;221&gt; MOD\_RES

&lt;222&gt; (3)..(3)

&lt;223&gt; modified with NH-hexyl

&lt;220&gt;

&lt;221&gt; MOD\_RES

&lt;222&gt; (28)..(28)

&lt;223&gt; AMIDATION

&lt;400&gt; 97

Gly Xaa Glu Phe Leu Ser Pro Glu His Gln Arg Val Gln Gln Arg Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

&lt;210&gt; 98

&lt;211&gt; 8

&lt;212&gt; PRT

&lt;213&gt; Artificial

&lt;220&gt;

&lt;223&gt; Ghrelin Analog

&lt;220&gt;

&lt;221&gt; MOD\_RES

&lt;222&gt; (1)..(1)

&lt;223&gt; modified with acyl (Ac)

&lt;220&gt;

&lt;221&gt; MISC\_FEATURE

&lt;222&gt; (2)..(2)

<223> xaa = alpha-aminoisobutyric acid (Aib)

<220>

<221> MOD\_RES

<222> (3)..(3)

<223> modified with NH-hexyl

<220>

<221> MISC\_FEATURE

<222> (8)..(8)

<223> Xaa = Arg or Lys

<220>

<221> MOD\_RES

<222> (8)..(8)

<223> AMIDATION

<400> 98

Gly Xaa Glu Phe Leu Ser Pro Xaa  
1 5

<210> 99

<211> 28

<212> PRT

<213> Artificial

<220>

<223> Ghrelin Analog

<220>

<221> MOD\_RES

<222> (1)..(1)

<223> modified with acyl (Ac)

<220>

<221> MISC\_FEATURE

<222> (2)..(2)

<223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>

<221> MOD\_RES

<222> (3)..(3)

<223> modified with NH-hexyl

<220>

<221> MISC\_FEATURE

<222> (10)..(10)

<223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>

<221> MOD\_RES

<222> (28)..(28)

<223> AMIDATION

<400> 99

Gly Xaa Glu Phe Leu Ser Pro Glu His Xaa Arg Val Gln Gln Arg Lys  
1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
                   20                  25

<210> 100  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>  
 <221> MOD\_RES  
 <222> (1)..(1)  
 <223> modified with n-butyryl, isobutyryl, n-octanoyl, or acyl (Ac)

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 100

Gly Ser Ser Phe Leu Ser Pro Glu His Gln Arg Val Gln Gln Arg Lys  
 1                  5                  10                  15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
                   20                  25

<210> 101  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>  
 <221> MOD\_RES  
 <222> (1)..(1)  
 <223> modified with n-butyryl

<220>  
 <221> MISC\_FEATURE  
 <222> (2)..(2)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MOD\_RES  
 <222> (3)..(3)  
 <223> modified with NH-hexyl

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 101



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Gly Xaa Glu Phe Leu Ser Pro Glu His Gln Arg Val Gln Gln Arg Lys  
1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
20 25

<210> 102  
<211> 28  
<212> PRT  
<213> Artificial

<220>  
<223> Ghrelin Analog

<220>  
<221> MOD\_RES  
<222> (28)..(28)  
<223> AMIDATION

<400> 102

Gly Ser Ser Phe Leu Thr Pro Glu His Gln Arg Val Gln Gln Arg Lys  
1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
20 25

<210> 103  
<211> 28  
<212> PRT  
<213> Artificial

<220>  
<223> Ghrelin Analog

<220>  
<221> MISC\_FEATURE  
<222> (2)..(2)  
<223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
<221> MOD\_RES  
<222> (3)..(3)  
<223> modified with NH-hexyl

<220>  
<221> MOD\_RES  
<222> (28)..(28)  
<223> AMIDATION

<400> 103

Gly Xaa Glu Phe Leu Thr Pro Glu His Gln Arg Val Gln Gln Arg Lys  
1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 104  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>  
 <221> MISC\_FEATURE  
 <222> (2)..(2)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 104

Gly Xaa Ser Phe Leu Thr Pro Glu His Gln Arg Val Gln Gln Arg Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 105  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>  
 <221> MOD\_RES  
 <222> (3)..(3)  
 <223> modified with NH-heptyl, O-hexyl, or NH-hexyl

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 105

Gly Ser Asp Phe Leu Ser Pro Glu His Gln Arg Val Gln Gln Arg Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 106

<211> 28  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>  
 <221> MOD\_RES  
 <222> (3)..(3)  
 <223> modified with NH-hexyl, or O-hexyl

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 106

Gly Ser Glu Phe Leu Ser Pro Glu His Gln Arg Val Gln Gln Arg Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 107  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>  
 <221> MISC\_FEATURE  
 <222> (1)..(1)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 107

Xaa Ser Ser Phe Leu Ser Pro Glu His Gln Arg Val Gln Gln Arg Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 108  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>

<223> Ghrelin Analog

<220>

<221> MOD\_RES

<222> (3)..(3)

<223> modified with S(CH<sub>2</sub>)<sub>9</sub>CH<sub>3</sub>, or S-decyl

<220>

<221> MOD\_RES

<222> (28)..(28)

<223> AMIDATION

<400> 108

Gly Ser Cys Phe Leu Ser Pro Glu His Gln Arg Val Gln Gln Arg Lys  
1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
20 25

<210> 109

<211> 28

<212> PRT

<213> Artificial

<220>

<223> Ghrelin Analog

<220>

<221> MISC\_FEATURE

<222> (2)..(2)

<223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>

<221> MOD\_RES

<222> (3)..(3)

<223> modified with NH-hexyl

<220>

<221> MOD\_RES

<222> (28)..(28)

<223> AMIDATION

<400> 109

Gly Xaa Glu Phe Leu Ser Pro Glu His Gln Arg Val Gln Gln Arg Lys  
1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
20 25

<210> 110

<211> 28

<212> PRT

<213> Artificial

<220>

<223> Ghrelin Analog

<220>

<221> MISC\_FEATURE

<222> (5)..(5)

<223> Xaa = Leu or Lys

<220>

<221> MOD\_RES

<222> (28)..(28)

<223> AMIDATION

<400> 110

Gly Ser Ser Phe Lys Ser Pro Glu His Gln Arg Val Gln Gln Arg Lys  
1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
20 25

<210> 111

<211> 28

<212> PRT

<213> Artificial

<220>

<223> Ghrelin Analog

<220>

<221> MISC\_FEATURE

<222> (2)..(2)

<223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>

<221> MOD\_RES

<222> (3)..(3)

<223> modified with NH-hexyl

<220>

<221> MISC\_FEATURE

<222> (9)..(9)

<223> Xaa = beta-(4-pyridinyl)Ala (4Pal)

<220>

<221> MISC\_FEATURE

<222> (12)..(12)

<223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>

<221> MISC\_FEATURE

<222> (15)..(15)

<223> Xaa = ornithine (Orn)

<220>

<221> MOD\_RES

<222> (28)..(28)

<223> AMIDATION

<400> 111

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Gly Xaa Glu Phe Leu Ser Pro Glu Xaa Gln Arg Xaa Gln Gln Xaa Lys  
1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
20 25

<210> 112  
<211> 28  
<212> PRT  
<213> Artificial

<220>  
<223> Ghrelin Analog

<220>  
<221> MISC\_FEATURE  
<222> (2)..(2)  
<223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
<221> MOD\_RES  
<222> (3)..(3)  
<223> modified with NH-hexyl

<220>  
<221> MISC\_FEATURE  
<222> (8)..(8)  
<223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
<221> MOD\_RES  
<222> (28)..(28)  
<223> AMIDATION

<400> 112

Gly Xaa Glu Phe Leu Ser Pro Xaa His Gln Arg Val Gln Gln Arg Lys  
1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
20 25

<210> 113  
<211> 28  
<212> PRT  
<213> Artificial

<220>  
<223> Ghrelin Analog

<220>  
<221> MISC\_FEATURE  
<222> (2)..(2)  
<223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>

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<221> MOD\_RES  
<222> (3)..(3)  
<223> modified with NH-hexyl

<220>  
<221> MISC\_FEATURE  
<222> (10)..(10)  
<223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
<221> MOD\_RES  
<222> (28)..(28)  
<223> AMIDATION

<400> 113

Gly Xaa Glu Phe Leu Ser Pro Glu His Xaa Arg Val Gln Gln Arg Lys  
1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
20 25

<210> 114  
<211> 28  
<212> PRT  
<213> Artificial

<220>  
<223> Ghrelin Analog

<220>  
<221> MISC\_FEATURE  
<222> (2)..(2)  
<223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
<221> MOD\_RES  
<222> (3)..(3)  
<223> modified with NH-hexyl

<220>  
<221> MOD\_RES  
<222> (28)..(28)  
<223> AMIDATION

<400> 114

Gly Xaa Glu Phe Leu Ser Pro Glu His Gln Arg Val Gln Gln Arg Lys  
1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
20 25

<210> 115  
<211> 28  
<212> PRT  
<213> Artificial

&lt;220&gt;

&lt;223&gt; Ghrelin Analog

&lt;220&gt;

&lt;221&gt; MISC\_FEATURE

&lt;222&gt; (2)..(2)

&lt;223&gt; Xaa = alpha-aminoisobutyric acid (Aib)

&lt;220&gt;

&lt;221&gt; MOD\_RES

&lt;222&gt; (3)..(3)

&lt;223&gt; modified with NH-hexyl

&lt;220&gt;

&lt;221&gt; MISC\_FEATURE

&lt;222&gt; (8)..(8)

&lt;223&gt; Xaa = alpha-aminoisobutyric acid (Aib)

&lt;220&gt;

&lt;221&gt; MOD\_RES

&lt;222&gt; (28)..(28)

&lt;223&gt; AMIDATION

&lt;400&gt; 115

Gly	Xaa	Glu	Phe	Leu	Ser	Pro	Xaa	His	Gln	Arg	Val	Gln	Gln	Arg	Lys
1				5					10					15	

Glu	Ser	Lys	Lys	Pro	Pro	Ala	Lys	Leu	Gln	Pro	Arg
			20					25			

&lt;210&gt; 116

&lt;211&gt; 28

&lt;212&gt; PRT

&lt;213&gt; Artificial

&lt;220&gt;

&lt;223&gt; Ghrelin Analog

&lt;220&gt;

&lt;221&gt; MISC\_FEATURE

&lt;222&gt; (1)..(1)

&lt;223&gt; Xaa = Gly or des-Gly

&lt;220&gt;

&lt;221&gt; MISC\_FEATURE

&lt;222&gt; (2)..(2)

&lt;223&gt; Xaa = des-Ser

&lt;220&gt;

&lt;221&gt; MOD\_RES

&lt;222&gt; (28)..(28)

&lt;223&gt; AMIDATION

&lt;400&gt; 116

Xaa	Xaa	Ser	Phe	Leu	Ser	Pro	Glu	His	Gln	Arg	Val	Gln	Gln	Arg	Lys
1				5					10					15	



Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 117  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>  
 <221> MISC\_FEATURE  
 <222> (2)..(2)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MISC\_FEATURE  
 <222> (4)..(4)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MISC\_FEATURE  
 <222> (9)..(9)  
 <223> Xaa = beta-(4-pyridinyl)Ala (4Pal)

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 117

Gly Xaa Ser Xaa Leu Ser Pro Glu Xaa Gln Arg Val Gln Gln Arg Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 118  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>  
 <221> MOD\_RES  
 <222> (1)..(1)  
 <223> modified with acyl (Ac)

<220>  
 <221> MISC\_FEATURE  
 <222> (2)..(2)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

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<220>  
 <221> MISC\_FEATURE  
 <222> (10)..(10)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 118

Gly Xaa Ser Phe Leu Ser Pro Glu His Xaa Arg Val Gln Gln Arg Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 119  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>  
 <221> MOD\_RES  
 <222> (1)..(1)  
 <223> modified with n-butyryl

<220>  
 <221> MISC\_FEATURE  
 <222> (2)..(2)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 119

Gly Xaa Ser Phe Leu Ser Pro Glu His Gln Arg Val Gln Gln Arg Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 120  
 <211> 8  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>  
 <221> MOD\_RES  
 <222> (1)..(1)  
 <223> modified with acyl (Ac)

<220>  
 <221> MISC\_FEATURE  
 <222> (2)..(2)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MOD\_RES  
 <222> (8)..(8)  
 <223> AMIDATION

<400> 120

Gly Xaa Ser Phe Leu Ser Pro Arg  
 1 5

<210> 121  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>  
 <221> MISC\_FEATURE  
 <222> (8)..(8)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 121

Gly Ser Ser Phe Leu Ser Pro Xaa His Gln Arg Val Gln Gln Arg Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 122  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>  
 <221> MISC\_FEATURE  
 <222> (1)..(1)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

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<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 122

Xaa Ser Thr Phe Leu Ser Pro Glu His Gln Arg Val Gln Gln Arg Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 123  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>  
 <221> MISC\_FEATURE  
 <222> (2)..(2)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 123

Gly Xaa Thr Phe Leu Ser Pro Glu His Gln Arg Val Gln Gln Arg Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 124  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>  
 <221> MISC\_FEATURE  
 <222> (2)..(2)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MISC\_FEATURE  
 <222> (6)..(6)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib), or alpha-aminobutyric

acid (Abu)

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

&lt;400&gt; 124

Gly Xaa Thr Phe Leu Xaa Pro Glu His Gln Arg Val Gln Gln Arg Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 125  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>  
 <221> MISC\_FEATURE  
 <222> (5)..(5)  
 <223> Xaa = 1-amino-1-cyclopentanecarboxylic acid (A5c)

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

&lt;400&gt; 125

Gly Ser Thr Phe Xaa Ser Pro Glu His Gln Arg Val Gln Gln Arg Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 126  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>  
 <221> MISC\_FEATURE  
 <222> (2)..(2)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MISC\_FEATURE  
 <222> (9)..(9)

<223> xaa = beta-(3-pyridinyl)Ala (3Pal), beta-(4-thiazolyl)Ala (Taz),  
or beta-(2-thienyl)Ala (2Thi)

<220>

<221> MOD\_RES

<222> (28)..(28)

<223> AMIDATION

<400> 126

Gly Xaa Thr Phe Leu Ser Pro Glu Xaa Gln Arg Val Gln Gln Arg Lys  
1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
20 25

<210> 127

<211> 28

<212> PRT

<213> Artificial

<220>

<223> Ghrelin Analog

<220>

<221> MISC\_FEATURE

<222> (2)..(2)

<223> xaa = alpha-aminoisobutyric acid (Aib)

<220>

<221> MISC\_FEATURE

<222> (7)..(7)

<223> xaa = thiazolidine-4-carboxylic acid (Thz), 4-hydroxyPro (4Hyp),  
3,4-dehydroPro (Dhp), pipecolic acid (Pip), or  
1,2,3,4-tetrahydroisoquinoline-3-carboxylic acid (Tic)

<220>

<221> MOD\_RES

<222> (28)..(28)

<223> AMIDATION

<400> 127

Gly Xaa Thr Phe Leu Ser Xaa Glu His Gln Arg Val Gln Gln Arg Lys  
1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
20 25

<210> 128

<211> 28

<212> PRT

<213> Artificial

<220>

<223> Ghrelin Analog

<220>  
 <221> MISC\_FEATURE  
 <222> (2)..(2)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MISC\_FEATURE  
 <222> (5)..(5)  
 <223> Xaa = beta-cyclohexylAla (Cha)

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 128

Gly Xaa Thr Phe Xaa Ser Pro Glu His Gln Arg Val Gln Gln Arg Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 129  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>  
 <221> MISC\_FEATURE  
 <222> (2)..(2)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MISC\_FEATURE  
 <222> (4)..(4)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MISC\_FEATURE  
 <222> (9)..(9)  
 <223> Xaa = beta-(4-pyridinyl)Ala (4Pal)

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 129

Gly Xaa Thr Xaa Leu Ser Pro Glu Xaa Gln Arg Val Gln Gln Arg Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 130  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>  
 <221> MISC\_FEATURE  
 <222> (2)..(2)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MISC\_FEATURE  
 <222> (8)..(8)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 130

Gly Xaa Thr Phe Leu Ser Pro Xaa His Gln Arg Val Gln Gln Arg Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 131  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>  
 <221> MISC\_FEATURE  
 <222> (1)..(1)  
 <223> Xaa = Gly or Gly modified with acyl (Ac)

<220>  
 <221> MISC\_FEATURE  
 <222> (2)..(2)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MISC\_FEATURE  
 <222> (10)..(10)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION



&lt;400&gt; 131

Xaa Xaa Thr Phe Leu Ser Pro Glu His Xaa Arg Val Gln Gln Arg Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

&lt;210&gt; 132

&lt;211&gt; 28

&lt;212&gt; PRT

&lt;213&gt; Artificial

&lt;220&gt;

&lt;223&gt; Ghrelin Analog

&lt;220&gt;

&lt;221&gt; MOD\_RES

&lt;222&gt; (1)..(1)

&lt;223&gt; modified with n-octanoyl, isobutyryl, or n-butyryl

&lt;220&gt;

&lt;221&gt; MOD\_RES

&lt;222&gt; (28)..(28)

&lt;223&gt; AMIDATION

&lt;400&gt; 132

Gly Ser Thr Phe Leu Ser Pro Glu His Gln Arg Val Gln Gln Arg Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

&lt;210&gt; 133

&lt;211&gt; 28

&lt;212&gt; PRT

&lt;213&gt; Artificial

&lt;220&gt;

&lt;223&gt; Ghrelin Analog

&lt;220&gt;

&lt;221&gt; MOD\_RES

&lt;222&gt; (1)..(1)

&lt;223&gt; modified with n-butyryl, or acyl (Ac)

&lt;220&gt;

&lt;221&gt; MISC\_FEATURE

&lt;222&gt; (2)..(2)

&lt;223&gt; Xaa = alpha-aminoisobutyric acid (Aib)

&lt;220&gt;

&lt;221&gt; MOD\_RES

&lt;222&gt; (28)..(28)

&lt;223&gt; AMIDATION

&lt;400&gt; 133

Gly Xaa Thr Phe Leu Ser Pro Glu His Gln Arg Val Gln Gln Arg Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

&lt;210&gt; 134

&lt;211&gt; 8

&lt;212&gt; PRT

&lt;213&gt; Artificial

&lt;220&gt;

&lt;223&gt; Ghrelin Analog

&lt;220&gt;

&lt;221&gt; MOD\_RES

&lt;222&gt; (1)..(1)

&lt;223&gt; modified with acyl (Ac)

&lt;220&gt;

&lt;221&gt; MISC\_FEATURE

&lt;222&gt; (2)..(2)

&lt;223&gt; Xaa = alpha-aminoisobutyric acid (Aib)

&lt;220&gt;

&lt;221&gt; MOD\_RES

&lt;222&gt; (8)..(8)

&lt;223&gt; AMIDATION

&lt;400&gt; 134

Gly Xaa Thr Phe Leu Ser Pro Arg  
 1 5

&lt;210&gt; 135

&lt;211&gt; 28

&lt;212&gt; PRT

&lt;213&gt; Artificial

&lt;220&gt;

&lt;223&gt; Ghrelin Analog

&lt;220&gt;

&lt;221&gt; MISC\_FEATURE

&lt;222&gt; (8)..(8)

&lt;223&gt; Xaa = alpha-aminoisobutyric acid (Aib)

&lt;220&gt;

&lt;221&gt; MOD\_RES

&lt;222&gt; (28)..(28)

&lt;223&gt; AMIDATION

&lt;400&gt; 135

Gly Ser Thr Phe Leu Ser Pro Xaa His Gln Arg Val Gln Gln Arg Lys

1

5

10

15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
           20                  25

<210> 136  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>  
 <221> MISC\_FEATURE  
 <222> (9)..(9)  
 <223> Xaa = beta-(4-thiazolyl)Ala (Taz), beta-(3-pyridinyl)Ala (3Pal),  
       beta-(4-pyridinyl)Ala (4Pal), or beta-(2-thienyl)Ala (2Thi)

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 136

Gly Ser Thr Phe Leu Ser Pro Glu Xaa Gln Arg Val Gln Gln Arg Lys  
 1                  5                  10                  15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
           20                  25

<210> 137  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>  
 <221> MISC\_FEATURE  
 <222> (7)..(7)  
 <223> Xaa = 4-hydroxyPro (4Hyp)

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 137

Gly Ser Thr Phe Leu Ser Xaa Glu His Gln Arg Val Gln Gln Arg Lys  
 1                  5                  10                  15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
                                   Page 83

<210> 138  
<211> 28  
<212> PRT  
<213> Artificial

<220>  
<223> Ghrelin Analog

<220>  
<221> MOD\_RES  
<222> (1)..(1)  
<223> modified with acyl (Ac)

<220>  
<221> MOD\_RES  
<222> (3)..(3)  
<223> modified with NH-hexyl

<220>  
<221> MOD\_RES  
<222> (28)..(28)  
<223> AMIDATION

<400> 138

Gly Ser Glu Phe Leu Ser Pro Glu His Gln Arg Val Gln Gln Arg Lys  
1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
20 25

<210> 139  
<211> 28  
<212> PRT  
<213> Artificial

<220>  
<223> Ghrelin Analog

<220>  
<221> MOD\_RES  
<222> (1)..(1)  
<223> modified with acyl (Ac)

<220>  
<221> MISC\_FEATURE  
<222> (2)..(2)  
<223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
<221> MISC\_FEATURE  
<222> (10)..(10)  
<223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
<221> MOD\_RES

&lt;222&gt; (28)..(28)

&lt;223&gt; AMIDATION

&lt;400&gt; 139

Gly Xaa Ser Phe Leu Ser Pro Glu His Xaa Arg Val Gln Gln Arg Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

&lt;210&gt; 140

&lt;211&gt; 28

&lt;212&gt; PRT

&lt;213&gt; Artificial

&lt;220&gt;

&lt;223&gt; Ghrelin Analog

&lt;220&gt;

&lt;221&gt; MOD\_RES

&lt;222&gt; (1)..(1)

&lt;223&gt; modified with n-butyryl

&lt;220&gt;

&lt;221&gt; MISC\_FEATURE

&lt;222&gt; (2)..(2)

&lt;223&gt; Xaa = alpha-aminoisobutyric acid (Aib)

&lt;220&gt;

&lt;221&gt; MOD\_RES

&lt;222&gt; (28)..(28)

&lt;223&gt; AMIDATION

&lt;400&gt; 140

Gly Xaa Ser Phe Leu Ser Pro Glu His Gln Arg Val Gln Gln Arg Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

&lt;210&gt; 141

&lt;211&gt; 28

&lt;212&gt; PRT

&lt;213&gt; Artificial

&lt;220&gt;

&lt;223&gt; Ghrelin Analog

&lt;220&gt;

&lt;221&gt; MISC\_FEATURE

&lt;222&gt; (2)..(2)

&lt;223&gt; Xaa = alpha-aminoisobutyric acid (Aib)

&lt;220&gt;

&lt;221&gt; MOD\_RES

<222> (3)..(3)  
 <223> modified with NH-hexyl

<220>  
 <221> MISC\_FEATURE  
 <222> (7)..(7)  
 <223> Xaa = 4-hydroxyPro (4Hyp)

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 141

Gly Xaa Glu Phe Leu Ser Xaa Glu His Gln Arg Val Gln Gln Arg Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 142  
 <211> 28  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>  
 <221> MISC\_FEATURE  
 <222> (2)..(2)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MOD\_RES  
 <222> (3)..(3)  
 <223> modified with NH-hexyl

<220>  
 <221> MISC\_FEATURE  
 <222> (8)..(8)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 142

Gly Xaa Glu Phe Leu Ser Pro Xaa His Gln Arg Val Gln Gln Arg Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 143

<211> 28  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>  
 <221> MISC\_FEATURE  
 <222> (2)..(2)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MOD\_RES  
 <222> (3)..(3)  
 <223> modified with NH-hexyl

<220>  
 <221> MISC\_FEATURE  
 <222> (9)..(9)  
 <223> Xaa = beta-(4-pyridinyl)Ala (4Pal)

<220>  
 <221> MISC\_FEATURE  
 <222> (12)..(12)  
 <223> Xaa = alpha-aminoisobutyric acid (Aib)

<220>  
 <221> MISC\_FEATURE  
 <222> (15)..(15)  
 <223> Xaa = ornithine (Orn)

<220>  
 <221> MOD\_RES  
 <222> (28)..(28)  
 <223> AMIDATION

<400> 143

Gly Xaa Glu Phe Leu Ser Pro Glu Xaa Gln Arg Xaa Gln Gln Xaa Lys  
 1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 144  
 <211> 27  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Ghrelin Analog

<220>  
 <221> MISC\_FEATURE  
 <222> (1)..(1)  
 <223> Xaa = Ava

<220>

<221> MISC\_FEATURE  
 <222> (2)..(2)  
 <223> Xaa = 2,3-diaminopropionic acid (Dap) modified with  
 1-octanesulfonyl

<220>  
 <221> MOD\_RES  
 <222> (27)..(27)  
 <223> AMIDATION

<400> 144

Xaa Xaa Phe Leu Ser Pro Glu His Gln Arg Val Gln Gln Arg Lys Glu  
 1 5 10 15

Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg  
 20 25

<210> 145  
 <211> 6  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Growth Hormone Releasing Peptide

<220>  
 <221> MISC\_FEATURE  
 <222> (2)..(2)  
 <223> Xaa = D-Tryptophan

<220>  
 <221> MISC\_FEATURE  
 <222> (5)..(5)  
 <223> Xaa = D-Phenylalanine

<220>  
 <221> MOD\_RES  
 <222> (6)..(6)  
 <223> AMIDATION

<400> 145

His Xaa Ala Trp Xaa Lys  
 1 5

<210> 146  
 <211> 7  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Growth Hormone Releasing Peptide

<220>  
 <221> MISC\_FEATURE  
 <222> (3)..(3)  
 <223> Xaa = D-beta-(2-naphthyl)Ala (D-2-Nal)



<220>  
 <221> MISC\_FEATURE  
 <222> (6)..(6)  
 <223> Xaa = D-Phenylalanine

<220>  
 <221> MOD\_RES  
 <222> (7)..(7)  
 <223> AMIDATION

<400> 146

Ala His Xaa Ala Trp Xaa Lys  
 1 5

<210> 147  
 <211> 6  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Growth Hormone Releasing Peptide

<220>  
 <221> MISC\_FEATURE  
 <222> (1)..(1)  
 <223> Xaa = D-Alanine

<220>  
 <221> MISC\_FEATURE  
 <222> (2)..(2)  
 <223> Xaa = D-beta-(2-naphthyl)Ala (D-2-Nal)

<220>  
 <221> MISC\_FEATURE  
 <222> (5)..(5)  
 <223> Xaa = D-beta-(1-naphthyl)Ala (D-Nal)

<220>  
 <221> MOD\_RES  
 <222> (6)..(6)  
 <223> AMIDATION

<400> 147

Xaa Xaa Ala Trp Xaa Lys  
 1 5

<210> 148  
 <211> 6  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Hexarelin

<220>  
 <221> MISC\_FEATURE

<222> (2)..(2)  
 <223> Xaa = D-2-Me-Tryptophan

<220>  
 <221> MISC\_FEATURE  
 <222> (5)..(5)  
 <223> Xaa = D-Phenylalanine

<220>  
 <221> MOD\_RES  
 <222> (6)..(6)  
 <223> AMIDATION

<400> 148

His Xaa Ala Trp Xaa Lys  
 1 5

<210> 149  
 <211> 27  
 <212> DNA  
 <213> Artificial

<220>  
 <223> Oligonucleotide primer

<400> 149  
 atgtggaacg cgacgccag cgaagag

27

<210> 150  
 <211> 27  
 <212> DNA  
 <213> Artificial

<220>  
 <223> Oligonucleotide Primer

<400> 150  
 tcatgtatta atactagatt ctgtcca

27